

DESIGN AND THE LIVING ENVIRONMENT

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Design is an emotive word. To the systems or production engineer it means practical planning; to many architects visual quality, the lifeblood of all values; to many of the architects' clients, what architects do—'at our expense'. Architectural critics have sought to isolate universal qualities in the great design of all ages, but it is an elusive search in which different cultural perspectives play odd tricks on our attitudes and judgements.

Just such an architectural critic mindful of his duty to protect his cultural tradition wrote in an obituary on Nash (the Nash we now revere as the Great Architect of Georgian England):

Died at his seat, East Cowes, Isle of Wight, in his 83rd year, John Nash, esq. As a speculative builder, this gentleman amassed a large fortune; but as an architect, he did not achieve any thing that will confer upon him lasting reputation, although he certainly had frequent and first-rate opportunities of doing so. The new palace in St. James's-park, has certainly added nothing to his fame in any respect, for it is universally admitted to be a most signal monument of extravagance and meanness combined—to be altogether a complete failure as a piece of architecture. Mr. Nash seems to have possessed neither grandeur in his general conception, nor any taste in his details, which look as if hurriedly sketched out, and never finished. . . . *Annual Register*, 1835.

Perhaps this is above all an example of the emotion generated by amassing large fortunes. However, if architects cannot agree about architectural qualities until at least a century has put those qualities in some kind of cultural perspective, it is clear that there cannot be any single definitive design style which is applicable today to the whole area of housing and residential planning. This is now much better understood by most people involved in residential decision making. There is an increasing awareness of the extraordinary diversity of reactions which people of different cultural backgrounds, upbringings, interests and

psychological make-up may bring to different environments; of the costs attached to unsatisfactory environments, costs related to direct inefficiencies, and psychic costs, instability, stress and so on.

The need to identify and to measure individual and group requirements is therefore now beginning to be accepted as an essential pre-requisite to the design of a satisfactory living environment. This paper is concerned with how this diversity of environmental reaction can be identified and with some of the ways different users' requirements can be most satisfactorily met.

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Firstly the extraordinary range of environmental influences makes adequate identification of real needs very difficult. Even when this identification research work is professionally carried out there is no certainty of complete success. Although the professional should have a grasp of the complexity of influences and the importance of different cultural traditions, and although his techniques of measurement should also be less liable to distortion and bias, he is as liable to general error and as liable to be influenced by current fashion in his profession as any other investigator. When the professional is working with people of different social and economic status—very low income families, people of different nationalities, aborigines—the problems are further compounded. There are many well documented professional misadventures in these areas.

The identification of cultural patterns and basic needs related to those patterns can therefore be a very difficult and sensitive problem. At different times through the paper I will refer to these problems again. However, given these very great difficulties, it is possible to state two important principles for the design of any living environment. The first principle is that the greatest range

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of environmental choice should be available in the society. The second is that within that wide range the greatest opportunity for personal selection and self expression should be available to all members of the society. I am of course talking about a complex diverse society such as our own and not about a primitive homogeneous society.

The importance of freedom of choice is underlined by research evidence that both animals and man in natural conditions firstly select their habitat and secondly modify it after they have selected it; and that animals as well as man exhibit signs of stress when they are unable to select and modify.

There is further evidence that the human stress of adaptation to a strange environment can be greatly reduced if the individual has some involvement in the initial choice and some control over the later development and functioning of this new environment. The way in which this variety of opportunities can be achieved and the freedom of the individual to choose within these opportunities are therefore of very great importance to the society.

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The complexity of the planning process firstly demands the involvement of a variety of skills. The organization and relationship of these skills is in turn a matter of fine adjustment. A good example of the process might be that of the changing role of the architect in planning. Recently there has been a significant reaction against visual, architectural planning. There have been good grounds for this reaction. However, it is unfair to say that the architect has been the primary cause of the problem. A better appreciation has led to the understanding that it is the system which has been wrong and not the individual performer, that it is not the architect's fault that he has quite unreasonably been asked to be a Uomo Universale. This has led to the development of more and more team approaches to design, where trained analysts, economists, sociologists and so on are asked to identify general forces and individual needs and then to write a comprehensive brief before the architect is asked to respond to it, and where all the experts participate in the final selection. However, in this group process the designer still has an extremely important part. The point is that there are different roles required in a team effort, not just managerial and specialist but also analytic and synthesizing.

I am not trying to give you a treatise on organization. However, the successes and failures of complex planning problems so much depend on

the process, and the importance of the process is often so poorly understood, that any discussion on design and its effect on living environments has to deal with these issues. The possibilities and difficulties of public participation in planning decision-making illustrate this point nicely. It is now a planning act of faith to believe in the principle of public participation. But to believe in the principle is one thing and to carry it out effectively is quite another. The public just may not want to participate. Some people may believe they have better things to do like playing golf, shooting craps or drinking beer. This will not, however, stop them from bitterly criticizing the plan and the planners if, later, when the plan starts to affect their lives, they do not like it. In turn the professionals who do want to participate will not necessarily participate in the way the planners have proposed. There are also competing demands on their time and interests.

A planning process based on the assumption that people will act in an orderly logical way is a poor process and unlikely to succeed. The process has therefore to encompass and provide for the irrational, and the planning methodology has to be much more subtle and responsive than is normally understood.

However, it is not enough to assume that a good solution will automatically develop from a well considered planning approach. Any technique will almost certainly have important limitations. The exercise is usually not a continuing but a finite exercise, probably completed with an enormous sigh of relief. There may be major deficiencies no matter how well it is carried through, due to reasonable mistakes of interpretation, lack of time for adequate research and a host of other reasons. So apart from having and using a good technique for solving the initial problems there has to be also a means of continuous adjustment to people's needs and preferences. How can this happen?

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In the private sector the market place is the well known mechanism for expression of personal preference. There is no doubt that the market place is indeed a very real corrective to misconception of need or appropriateness or satisfaction. When my partner and I started Merchant Builders we, and our architect, worked over our initial plans for many, many hours and revised them many times. Our first two or three clients very quickly disposed of any ideas we had that the plans were readily adaptable to different site conditions and client requirements. It is quite

extraordinarily difficult to plan very effectively for a great diversity of people and situations. The market place is continuously reminding planners, architects and builders of this fact, often very painfully.

However, the market place has its well known deficiencies too. It works well for the affluent, often not at all for the very poor. It is a part of a system which encourages materialist and consumer values, with perhaps a preoccupation with status and glamour. Not the least of its limitations is that it is also subject to controls which limit its opportunity to provide a better flow of innovative alternatives. The controls, the rules established by the State to regulate planning, house design and construction are themselves a product of the system. All developed in some sense as correctives to the unfettered freedom of action of 'unscrupulous profit seekers' in private industry.

The developer's stereotype is well understood. 'You do everything you legally can to exploit all the opportunities within the rules to maximize your profit.' However, in return the rule makers and rule operators have their own stereotypes: innate suspicion of any proposal for change on the assumption that either the proposer is himself seeking some carefully veiled advantage which will not appear until the scheme has been approved and built, or alternatively that there will be established a precedent which will be systematically exploited by all the other 'baddies' in ways which cannot be clearly foreseen but are nonetheless real. These descriptions, in which of course there is some truth, are at the same time gross over-simplifications. People rarely behave entirely consistently; motives vary enormously between different individuals within the system and indeed between different individuals in the same organization. The result therefore all too often seems to be a confrontation, not a dialectic. Rule making which actively sets out to make change and experimentation possible under controlled conditions rather than rule making which sets out only to put curbs and chains on private activity is an essential need. I shall have a little more to say about this later.

In public housing areas the issues are different. The public housing authorities in fact came into existence precisely in order to overcome the problems inherent in the market system. Most but not all of these market system problems are therefore not of major significance in the public area. The public housing authorities have considerable freedom from the regulatory constraints imposed on the private sector or, if not, at least a better bargaining power. There are, however,

other rules related to their charters and the Housing Agreements which do put real restraints on them. Nonetheless, a determined Minister and a determined authority could quickly vary or adapt these rules.

What the housing authority does not have is any built-in system to determine user preference. The user has to take the very limited range of choices offered because he has no other alternatives. The organizations are large organizations, the problems are problems of logistics, long waiting lists, available resources, maximum production in the shortest time within the scope offered by the resources. It is no wonder that the authorities are production orientated, run by production minded people. The problem is that though total concentration of effort on the production process may often indeed result in efficient production, the product may be quite inappropriate. It may not answer real needs or provide the freedom of choice it could, and may even under certain circumstances be producing worse conditions than the conditions it replaces, at great cost to the total community.

How is it possible to introduce greater respect for user needs and preferences? One way is to improve the planning process by bringing in sociologists and other professionals, by using better planning procedures, and by other public participation exercises. But this process has also all the defects I have described. The planning will be done by the professionals, a wider range of professionals to be sure, and using methods, good methods, to create good interactions among the professionals, but it is likely to be an exercise by the professionals only and very often fails to involve the users themselves. The users in public authority housing are poor, come from different backgrounds from the professionals, feel insecure with them, are unaccustomed to dealing in concepts or reading plans, and are usually unable or unwilling to be interested in the process. The planners are still in that unhappy situation of planning for other people and particularly planning for other people of entirely different backgrounds and cultural values.

Really sensitive answers which are truly responsive to the needs of the users are difficult to achieve by these methods, especially when the process is a continuous process. The more the planners and designers go through their exercise the more they tend to become fixed in their attitudes, the less receptive to new information and ideas. It is a human characteristic.

There are therefore serious limitations to paternalistic planning. In the United States, partly

in response to these problems, partly in order to tap the resources of private industry, a whole range of housing programs have been instituted over the last ten years or so. (Most have now been dropped by the Nixon administration along with other welfare programs.) The programs, which were many and various, sought primarily to use private industry to provide low income housing by interest subsidy, turnkey operation (undertakings to purchase schemes built by private enterprise at the time of their completion), and other such devices. There were real successes with these programs, successes related to cheaper construction and a wider range of housing types and therefore some extended choice. Unfortunately many of the successes were overshadowed by scandals of graft and misappropriation. The programs also failed to provide for the really poor. Although a series of presidential advisory committees has drawn attention to these deficiencies most of their recommendations have not been put into effect.

Despite their aura of failure these programs deserve serious consideration in Australia. As so often happens when something does not work, the concept is blamed when very often the concept may be quite satisfactory but the technique used to carry it out inadequate. The particular merit of these housing programs, leaving aside the cost reductions reported in the advisory committees' findings, was to open up a wider variety of housing opportunities by providing a little more of the freedom of choice to be found in the more affluent private housing market.

The programs have, however, many limitations. In them there still remains a very large element of paternalism. As a reaction to these limitations a new movement in the U.S. has produced some interesting new ideas for the further extension of opportunities for the low income earner to make his own housing choice. In a book called *Freedom to Build*, John Turner and a group of architects and other professionals—some who have worked on housing programs in the developing countries, some who have been concerned with housing in the United States—have drawn attention to the fact that a huge neglected area of the housing market is the market of self-built housing, houses ranging from those built wholly by the owner's labour, to houses largely subcontracted under the owner's direction. The authors point out that in the U.S., despite its affluence and its technology and despite the size and power of its large corporations, still over 15% of the total housing completions are owner built. What is more important is that the houses are built for

about 60% of the ordinary cost of a house and are built the way the owner wants them. For the owner there is the dignifying benefit of making his own decisions. He has to learn to deal with the authorities and may therefore also find a new confidence moving about in a foreign organizational world. Finally involvement in the building process means a very different attitude to the house when it is built. This is particularly important when the technique is applied to rental housing, i.e. when occupiers renovate their housing. The change in maintenance costs in this situation can be dramatic. This large market, it should be remembered, also exists without the benefit of ordinary housing loans which are not normally available to the owner-builder in quite the same form, if at all.

In Australia there is an equally substantial and equally forgotten segment of the housing market occupied by the owner-builders. In the year ending 72/73 there were 13,495 completions of owner built houses, 12.9% of the total number of private completions for the year. Furthermore there were in the same year 16,018 commencements of owner built houses, 13.4% of the total private commencements for the year. The numbers of owner-builders therefore seems to be growing, not declining. If this group already exists in such numbers, unrecognized and unassisted, what might not be possible if Governments concentrated on servicing potential owner-builders as an alternative to providing predetermined housing at infinitely higher cost. Such a process allied to income subsidies might also have a really dramatic effect on the housing authorities; a truly Marxist possibility of the withering away of the State!

Other extensions of this idea have fascinating possibilities. The role of the professional, the architect for example, might change from being that of design determiner to that of adviser and counsellor, teaching environmental consciousness and appreciation of basic design as well as assisting in more practical ways, working by suggestion and example rather than by decree. The role would be a much more subtle and difficult one but also a much more rewarding one, however imperfectly accomplished, because the process would be an involving and learning process for all the parties. The possibilities extend further into the creation of communities. This is not just a fanciful notion. In the U.S. there are already some remarkable examples of community design projects carried out in just this way.

Owner-building is one entirely practical alternative to the existing methods of producing low

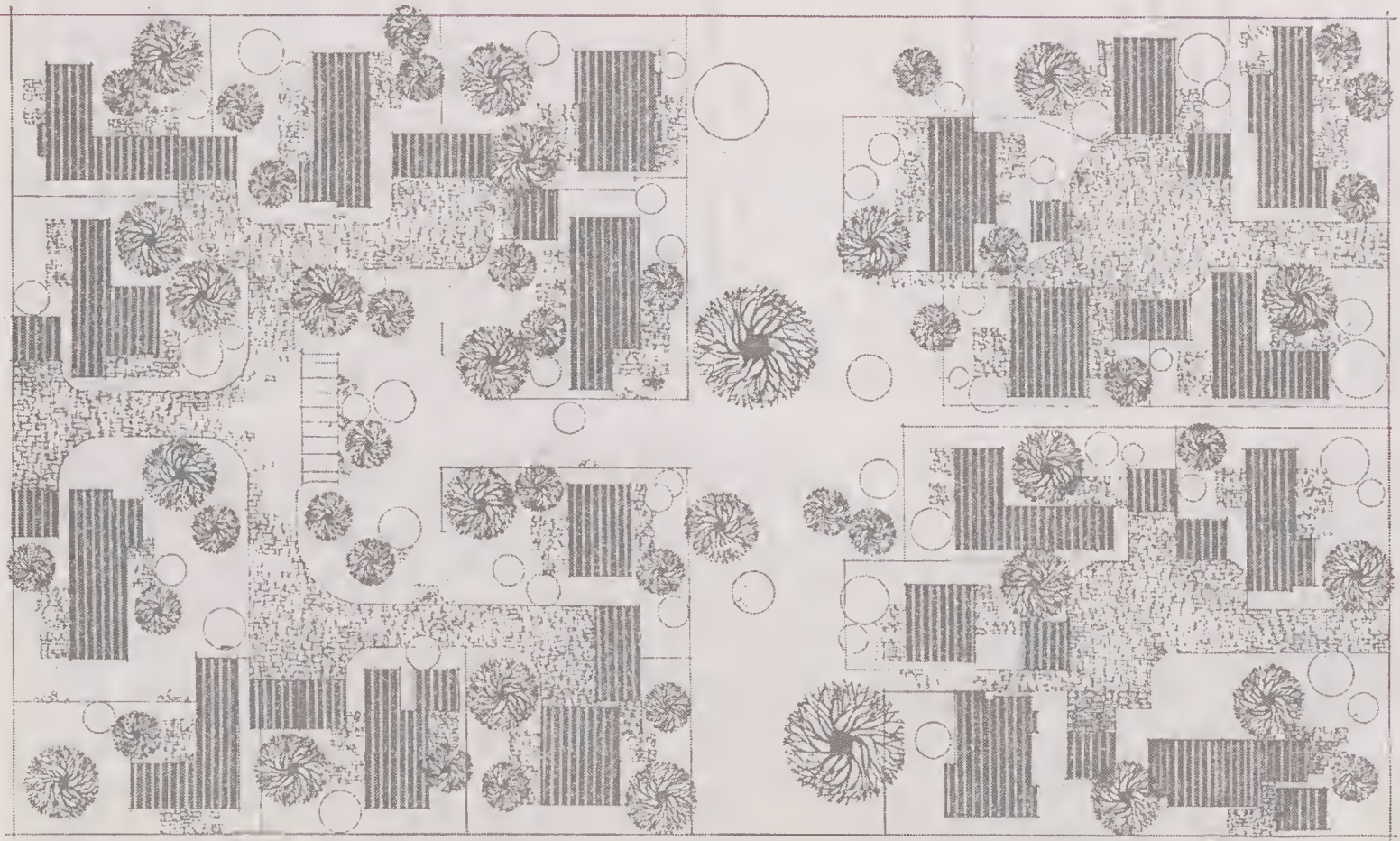


FIG. 1—Winter Park, Doncaster, Victoria: Layout of cluster plan. 20 houses on 4.3 acres.

income housing, an alternative which can be accomplished at very much reduced cost to the community and much greater satisfaction to the householder. There would of course continue to be a need for housing supplied by more conventional methods since owner building would not suit all requirements. It is, however, providing the alternatives which is important.

Let me now return to the private sector. I have mentioned that the main obstructions to greater innovation and thus variety and alternative choice are the obstructions of regulations and the manner in which these regulations are interpreted. This needs emphasizing and re-emphasizing because there is a very commonly held belief, both a popular belief and a professional belief, that our society is indifferent toward new ideas and the possible benefits of these new ideas. The popular expression is seen through the writings of the pundits on the Australian way of life. It is seen amongst sociologists, particularly perhaps those sociologists indignant about the growth of consumer values and the way these consumer values have affected life styles. Some are so conscious of the flagrant marketing techniques used in housing developments that they overlook the very real improvement in house planning which has taken place over the years. There are I believe special reasons why intellectuals, especially social critics, hold these views and why it is important that they should continue to present them. However, my experience is contrary to this thesis. If a new idea can be put into practice there is always a small group ready and willing to adopt it, for whatever motive, provided that the necessary conditions of time, place and relative cost are adequately met—that is, the conditions related to good management and good judgement.

I could give you many examples of misjudgements about interesting new ideas, but I prefer to give you an example of the successful execution of a novel concept because I think it makes the point better. Some two years ago my company started a small development of freely sited houses in Doncaster. The principle behind the cluster idea was to plan the development to respond to the natural features of the site, sun, slope, trees, views, and to site the houses in the most sensible relationship to each other. As the illustrations, Fig. 1 and Pl. 12 show, the effect is very different from a conventional subdivision although the density of development was not changed. In the cluster group there are some further signal benefits. Although each house has its own private garden, well related to the living areas of the house, rational planning has reserved nearly 25%

of the site for common open space. This common open space in turn allows the possibility of interesting new social interactions. There are many other points I could make about the scheme. However, it is the changes in reaction over the various stages of the development—from the time the idea was first proposed through its early development up to its completed operating finished form—which are most interesting. Although residents' changing reactions to the sharing of communal land and facilities is an intriguing social study in itself, it is the authorities' change in attitude which is really startling. Before the scheme began and even in its early days it had relatively few advocates. Now municipal officers speak eagerly of the potentialities of cluster development. Legislation to facilitate cluster development is likely to be introduced within a few months, and, looking forward a few years, it is not fanciful to consider that a large part of Melbourne's future development may be carried out in cluster form. This is an illustration of the power of example, of the force of a new idea when that new idea can be put into a physical form. It is, however, difficult and expensive for private enterprise to carry out these experiments in the present climate of bureaucratic thinking. Other alternatives are needed.

I have mentioned the fear of setting precedent which seems to be the all pervasive fear which paralyses intelligent response from authorities. Somehow authorities must be taught to look for improvements and innovation and to be ready to assist their progress. Since, however, mere exhortation is not likely to change these attitudes very greatly or very quickly, it seems that other devices are necessary. Some of these devices include provisions in all planning schemes for comprehensive planning proposals which do not necessarily comply with existing regulations and the opportunity to submit to a superior authority or appeal body which would have powers to waive those regulations, proposals which can be seen to be in the public interest.

Most important of all would be any active steps which Government can take to change the emphasis towards innovation and experimentation. The most effective way of achieving such a change of emphasis would seem to be to create machinery for social experiments. The machinery must involve ideas which can be collected from the whole community, not just the ideas which are generated within a bureaucratic institution, public or private. One way this might be done is through a special experimental program. Governments might for example invite submissions for

social experiments from the whole community. They would then evaluate these submissions, select a few for development, provide support either by underwriting or through low interest loans, make possible the very quick passage of permit application (if necessary by waiving existing regulations, normally a problem of great importance with applications for innovative developments) and finally provide the means for very careful measurement of the successes and failures of the experiment.

The advantage of such a process is not merely to draw on the community's ideas, but also to find means of carrying out and measuring controlled experiments with those ideas. It is also to emphasize that Government action should be positively as well as negatively directed, to foster the good as much as to prevent the bad.

This is a process which has equal benefit to both

public and private sectors. It is also a research experiment process which would run parallel to experimental projects public authorities should be carrying out in their own right.

All of these ideas are ideas aimed at providing answers which satisfy the two basic principles set out at the beginning of this paper: firstly a wider range of housing opportunities, and secondly greater opportunity for individual choice and self expression within those opportunities.

In seeking to provide these answers, it is important to remember that the distinctions between public and private action are in themselves distinctions of little importance. The differences are in any case now differences of degree only. What is important is to provide the best answer within the total resources which are available to the community and to use those resources to the greatest possible advantage.

DESCRIPTION OF PLATE 12

Winter Park, Doncaster, Victoria: View of four houses and a part of the communal open space.